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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/291,798	04/14/1999	JEFF SOLUM	500.715US1	2590

34206 7590 05/19/2004

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EXAMINER	
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ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 05/19/2004

18

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 18

Application Number: 09/291,798
Filing Date: April 14, 1999
Appellant(s): SOLUM, JEFF

David N. Fogg
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/03/2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1,3-6,8-17 and 19-28 do stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,740,540	EMMERMANN	4-1998
5,440,562	CUTLER	8-1995
4,633,462	STIFLE ET AL.	12-1986
5,799,069	WESTON ET AL.	8-1998
6,151,334	KIM ET AL.	11-2000
5,764,734	MEDENDORP ET AL.	6-1998
5,392,287	TIEDEMANN, JR. ET AL.	2-1998

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims and correspond to the Examiner's Final Office Action (Paper Number 13), mailed 09/04/2003:

Claims 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp (USPN 5,764,734), hereafter referred to as Medendorp.

Referring to claim 26, Medendorp discloses a method for controlling power consumption in a remote communication device in signal communication with a head end communication device (a power management method in a system with a CCU (headend) and a CAU (remote device) (see figure 1)), the method comprising:

setting a power down timer for the remote communication device to time a predetermined power down period (power to a transceiver is turned off for the duration of a sleep timer that is inherently started (see column 5 lines 23-37 and figure 8));

Medendorp does not disclose that the powering up of the portion of the receiver comprises powering up in time to allow detection of an attempted retransmission of a packet. However, it would have been obvious to one skilled in the art at the time of the invention to power up the receiver of Medendorp in enough time to detect retransmissions because doing so would allow for proper communication with the source (i.e. if the receiver does not have time to detect retransmissions then communications with the source would not take place and the system would not operate properly).

Referring to claim 28, Medendorp discloses the system as discussed above. Furthermore, Medendorp discloses that the retransmission of data comprises a data packet (the data is transmitted as alert phases and information blocks (see figures 6 and 7)).

Claims 1,3,5,20 and 22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of U.S. Patent number 6,151,334 to Kim et al., hereafter referred to as Kim.

Referring to claim 1, Medendorp discloses a method for controlling power consumption in a device (a method for controlling power consumption (see abstract)), comprising powering down at least a portion of a receiver of the communication device for a selected period of time (power to a transceiver is turned off for the duration of a sleep timer (see column 5 lines 23-37 and figure 8)), when the selected period of time expires, powering up at least a portion of the receiver to detect and receive incoming data packets when incoming data is detected (after the sleep timer equals zero the transceiver is powered up and checks for and receives data related to an incoming telephone call (see column 5 lines 23-37 and figure 8)).

Medendorp does not disclose that the portion of the receiver is powered down in response to an indication from the source that data transmission has ended. However, Kim discloses of a system wherein a receiver powers down when it receives a particular code word from the transmitter which indicates the end of the data transmission (see column 7 lines 3-8)). It would have been obvious to one skilled in the art at the time of the invention to power down the receiver when the source sends it an indication that data transmission has ended, as taught by Kim, in the system of Medendorp because doing so would prevent wasting power (i.e. since the transmission of data has ended there is no need for the receiver to remain fully powered).

Medendorp also does not disclose that the powering up of the portion of the receiver comprises powering up in time to allow detection of an attempted retransmission of a packet. However, it would have been obvious to one skilled in the art at the time of the invention to power up the receiver of Medendorp for enough time to detect retransmissions because doing so would allow for proper communication with the source (i.e. if the receiver does not have enough time to

detect retransmissions then communications with the source would not take place and the system would not operate properly).

Referring to claim 3, Medendorp discloses the method of controlling power consumption as discussed above. Furthermore, Medendorp discloses powering down the at least a portion of a receiver for a selected period of time comprises setting and decrementing a counter (the transceiver is powered off until the sleep timer counts down to zero (see column 5 lines 23-37 and figure 8)).

Referring to claim 5, Medendorp discloses controlling power consumption as discussed above. Furthermore, Medendorp discloses powering up the receiver checking for incoming data (powering on the transceiver and checked for the alert frame (see column 5 lines 23-37 and figure 8)), when no data is detected, checking for incoming data after another selected period of time (if the alert value has not been received, the transceiver powers down again for the duration of a timer and then powers up and checks for data again after the timer expires (see column 5 lines 23-37 and figure 8)), when incoming data is detected, processing the data (when a call is received the call is processed (see column 5 lines 23-37 and figure 8)), when no incoming data is detected, powering down the receiver for a selected period of time (if the alert frame is not received the timer is reset and the transceiver is powered off (see column 5 lines 23-37 and figure 8)).

Referring to claim 20, Medendorp discloses a method of power management in a system including a head end and at least one remote communications device (a power management method in a system with a CCU (headend) and a CAU (remote device) (see figure 1)) comprising:

setting a counter at a remote unit to a predetermined power down period (the transceiver is powered off until the sleep timer counts down to zero (see column 5 lines 23-37 and figure 8));

checking for an incoming transmission after the power down period has expired (after the sleep timer equals zero the transceiver is powered up and checks for and receives data related to an incoming telephone call (see column 5 lines 23-37 and figure 8));

if no incoming transmission is received, resetting the counter to the predetermined power down period (if the alert frame is not received the timer is reset and the transceiver is powered off (see column 5 lines 23-37 and figure 8)).

Medendorp does not disclose that if an incoming transmission is received the counter is reset in response to an indication from the source that data transmission has ended. However, Kim discloses of a system wherein a receiver powers down when it receives a particular code word from the transmitter which indicates the end of the data transmission (see column 7 lines 3-8)). It would have been obvious to one skilled in the art at the time of the invention to reset the timer of Medendorp when the source sends it an indication that data transmission has ended, as taught by Kim, because doing so would prevent wasting power (i.e. since the transmission of data has ended there is no need for the receiver to remain fully powered).

Referring to claim 22, Medendorp discloses controlling power consumption as discussed above. Medendorp does not disclose that the powering down of the portion of the receiver is timed to allow for the power up and detection of the retransmission of data from the head end. However, it would have been obvious to one skilled in the art at the time of the invention to time the power down period so that the receiver can power up in time to detect retransmissions, in the system of Medendorp, because doing so would allow for proper communication with the source

(i.e. if the receiver did not power up in enough time to detect retransmissions then communication with the source would not take place and the system would not operate properly).

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of U.S. Patent number 5,392,287 to Tiedemann et al, hereafter referred to as Tiedemann.

Referring to claim 24, Medendorp discloses a method for controlling power consumption in a remote communication device in signal communication with a head end communication device (a power management method in a system with a CCU and a CAU (see figure 1)), the method comprising:

starting a counter for the remote communication device to time a predetermined power down period (power to a transceiver is turned off for the duration of a sleep timer that is inherently started (see column 5 lines 23-37 and figure 8));

powering down the remote communication device for the predetermined power down period (power to a transceiver is turned off for the duration of a sleep timer (see column 5 lines 23-37 and figure 8));

powering up the remote communication device to check for any incoming data (after the sleep timer equals zero the transceiver is powered up and checks for and receives data related to an incoming telephone call (see column 5 lines 23-37 and figure 8)).

Medendorp does not disclose starting a counter at the head end to the same time as the power down period of the remote device, thus synchronizing with the remote device. However,

Tiedemann discloses synchronizing a receiver with that of the transmitter to which it is connected (see column 4 lines 17-33)). It would have been obvious to one skilled in the art at the time of the invention to perform the synchronization between the source and receiver timers, as taught by Tiedemann, in the system of Medendorp because doing so would prevent timing problems and possible loss of data (i.e. the source would know when the receiver was powered down or not and therefore it would know when the proper time would be to transmit data to the receiver).

Medendorp also does not disclose that the counter in the head end is started at the completion of data transmission to the remote device. However, it would have been obvious to one skilled in the art at the time of the invention to start the counter of the head end after completion of the transmission of data to the remote device because doing so would properly synchronize the headend and remote device counters, thereby allowing for properly timed communication between the headend and remote device.

Referring to claim 25, Medendorp discloses a method for controlling power consumption in a remote communication device in signal communication with a head end communication device (a power management method in a system with a CCU and a CAU (see figure 1)), the method comprising:

starting a counter for the remote communication device to time a predetermined power down period (power to a transceiver is turned off for the duration of a sleep timer that is inherently started (see column 5 lines 23-37 and figure 8));

Medendorp does not disclose starting a counter at the head end to a time the same as the power down period of the remote device, thus synchronizing with the remote device. However,

Tiedemann discloses synchronizing a receiver with that of the transmitter to which it is connected (see column 4 lines 17-33)). It would have been obvious to one skilled in the art at the time of the invention to perform the synchronization between the source and receiver timers, as taught by Tiedemann, in the system of Medendorp because doing so would prevent timing problems and possible loss of data (i.e. the source would know when the receiver was powered down or not and therefore it would know when the proper time would be to transmit data to the receiver).

Medendorp also does not disclose that the counter in the head end is started at the completion of data transmission to the remote device. However, it would have been obvious to one skilled in the art at the time of the invention to start the counter of the head end after completion of the transmission of data to the remote device because doing so would properly synchronize the headend and remote device counters, thereby allowing for properly timed communication between the headend and remote device.

Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of Stifle et al. (USPN 4,633,462), hereafter referred to as Stifle.

Referring to claim 17, Medendorp discloses a power control circuit for a communication device (a method and apparatus for controlling power consumption (see abstract)) comprised of a counter that establishes a selected time period for powering down a receiver of the communication device (power to a transceiver is turned off for the duration of a sleep timer (see column 5 lines 23-37 and figure 5)) and a processor coupled to the counter (the timer is within a microprocessor (see column 5 lines 23-37, claim 15 and figure 5)), that is programmed to control

the reset of the counter, to power down the receiver, and to power up the receiver to check for incoming data packets transmitted by another communication device when the counter indicates that the selected time period has expired (the microprocessor controls the timer so that the transceiver is powered down until the sleep timer expires and then powered up to check for incoming alert frames from the transmitter (see column 5 lines 23-37, claim 15 and figures 5 and 1)). Note the timer is inherently reset since the power saving feature disclosed in Medendorp is an on-going repetitive process.

Medendorp does not disclose that the powering up of the portion of the receiver comprises powering up in time to allow detection of an attempted retransmission of a packet. However, it would have been obvious to one skilled in the art at the time of the invention to power up the receiver of Medendorp for enough time to detect retransmissions because doing so would allow for proper communication with the source (i.e. if the receiver does not have enough time to detect retransmissions then communications with the source would not take place and the system would not operate properly).

Medendorp also does not disclose that the head end retransmits packets when no acknowledgment is received. However, Stifle discloses of a system wherein when a head end does not receive acknowledgments it retransmits the data (see column 10 lines 19-26)). It would have been obvious to one skilled in the art at the time of the invention to implement, in the system of Medendorp, a protocol of retransmitting packets that are not acknowledged, as taught in the system of Stifle, because such a protocol would allow data that might be lost or corrupted during transmission (and therefore not acknowledged) to be retransmitted to the destination, thereby increasing the reliability of the system of Medendorp.

Referring to claim 19, Medendorp discloses controlling power consumption as discussed above. Furthermore, Medendorp discloses that the processor is programmed to power up the receiver for a selected time period to check for incoming data (the microprocessor powers up the receiver for a time period and checks for the alert frame (see column 5 lines 23-37, claim 15 and figure 5)).

Claim 4,6,8-12,14,15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of Kim and further in view Tiedemann.

Referring to claim 4, Medendorp discloses a method for controlling power consumption as discussed above. Medendorp does not disclose synchronizing the counter with a counter disposed at the source of the incoming data. However, Tiedemann discloses synchronizing a receiver with that of the transmitter to which it is connected (see column 4 lines 17-33)). It would have been obvious to one skilled in the art at the time of the invention to perform the synchronization between the source and receiver timers, as taught by Tiedemann, in the system of Medendorp in view of Kim because doing so would prevent timing problems and possible loss of data (i.e. the source would know when the receiver was powered down or not and therefore it would know when the proper time would be to transmit data to the receiver).

Referring to claim 6, Medendorp discloses of a communications device comprising:

a transmitter that transmits data (a transceiver that transmits data (see item 114 in figure 5));

a receiver that receives data over a communications link (a transceiver that receives data from a communications link (see item 114 of figure 5));

a signal processing circuit, coupled to the transmitter and receiver, to prepare data for transmission and to process data received by the receiver (a microprocessor for preparing data transmission and process received data (see item 118 of figure 5)); and

a control circuit, responsive to the signal processor, that selectively powers at least a portion of the receiver down for a period of time (power to a transceiver is turned off for the duration of a sleep timer (see column 5 lines 23-37 and figure 8)) and that powers up the at least a portion of a receiver to check for incoming data when the selected period of time expires (after the sleep timer equals zero the transceiver is powered up and checks for and receives data related to an incoming telephone call (see column 5 lines 23-37 and figure 8)).

Medendorp does not disclose that the portion of the receiver is powered down in response to an indication from the source that data transmission has ended. However, Kim discloses of a system wherein a receiver powers down when it receives a particular code word from the transmitter which indicates the end of the data transmission (see column 7 lines 3-8)). It would have been obvious to one skilled in the art at the time of the invention to power down the receiver when the source sends it an indication that data transmission has ended, as taught by Kim, in the system of Medendorp because doing so would prevent wasting power (i.e. since the transmission of data has ended there is no need for the receiver to remain fully powered).

Furthermore, Medendorp does not disclose synchronizing the counter with a counter disposed at the source of the incoming data. However, Tiedemann discloses synchronizing a receiver with that of the transmitter to which it is connected (see column 4 lines 17-33)). It would have been obvious to one skilled in the art at the time of the invention to perform the synchronization between the source and receiver timers, as taught by Tiedemann, in the system of Medendorp in

view of Kim because doing so would prevent timing problems and possible loss of data (i.e. the source would know when the receiver was powered down or not and therefore it would know when the proper time would be to transmit data to the receiver).

Referring to claim 8, Medendorp discloses the system discussed above. Furthermore, Medendorp discloses that the control circuit powers up the receiver to check for incoming data for at least a selected period of time (after the sleep timer equals zero the transceiver is powered up for a period of time and checks for and receives data related to an incoming telephone call (see column 5 lines 23-37 and figure 8)).

Referring to claim 9, Medendorp discloses the system discussed above. Furthermore, Medendorp discloses that the control circuit selectively powers down the at least a portion of a receiver when a selected period of time after power-up has expired or when a signal indicates that a current data transmission is complete (after a period of time in which an alert frame is not received the timer is reset and the transceiver is powered off (see column 5 lines 23-37 and figure 8)).

Referring to claim 10, Medendorp discloses the system discussed above. Furthermore, Medendorp discloses that the signal processing circuit comprises a signal processing circuit for a cable modem (the processing unit is part of a cable access unit (CAU) (see figures 1 and 5)).

Referring to claim 11, Medendorp discloses the system discussed above. However, Medendorp does not disclose that the powering up of the portion of the receiver comprises powering up in time to allow detection of an attempted retransmission of a packet. However, it would have been obvious to one skilled in the art at the time of the invention to power up the receiver of Medendorp for enough time to detect retransmissions because doing so would allow

for proper communication with the source (i.e. if the receiver does not have enough time to detect retransmissions then communications with the source would not take place and the system would not operate properly).

Referring to claim 12, Medendorp discloses of a communications network comprising:

a head end communication device (a cable control unit (CCU) (see the dashed box of figure 1));

at least one remote communication device that is communicatively coupled to the head end communication device (a CAU unit (see item 16 of figure 1)); and

wherein each of the at least one remote communication device includes a control circuit that powers down a receiver of the at least one remote communication device for a selected period of time (power to a transceiver is turned off for the duration of a sleep timer (see column 5 lines 23-37 and figure 8)) and that powers up the receiver of the at least one remote communication device to check for incoming data from the head end communication device when the selected period of time expires (after the sleep timer equals zero the transceiver is powered up and checks for and receives data related to an incoming telephone call (see column 5 lines 23-37 and figure 8)).

Medendorp does not disclose that the portion of the receiver is powered down in response to an indication from the source that data transmission has ended. However, Kim discloses of a system wherein a receiver powers down when it receives a particular code word from the transmitter which indicates the end of the data transmission (see column 7 lines 3-8)). It would have been obvious to one skilled in the art at the time of the invention to power down the receiver when the source sends it an indication that data transmission has ended, as taught by

Kim, in the system of Medendorp because doing so would prevent wasting power (i.e. since the transmission of data has ended there is no need for the receiver to remain fully powered). Furthermore, Medendorp does not disclose synchronizing the counter with a counter disposed at the source of the incoming data. However, Tiedemann discloses synchronizing a receiver with that of the transmitter to which it is connected (see column 4 lines 17-33)). It would have been obvious to one skilled in the art at the time of the invention to perform the synchronization between the source and receiver timers, as taught by Tiedemann, in the system of Medendorp in view of Kim because doing so would prevent timing problems and possible loss of data (i.e. the source would know when the receiver was powered down or not and therefore it would know when the proper time would be to transmit data to the receiver).

Referring to claim 14, Medendorp discloses the system discussed above. Furthermore, Medendorp discloses that each of the at least one remote communication device comprises a cable modem (the processing unit is part of a cable access unit (CAU) (see item 16 of figures 1 and figure 5)).

Referring to claim 15, Medendorp discloses the system discussed above. Furthermore, Medendorp discloses that each of the remote communication device is communicatively coupled to the head end communication device over a communication network (each CAU is coupled to the CCU by way of a communications network (see item 12 of figure 1)).

Referring to claim 21, Medendorp discloses the system discussed above. Medendorp does not disclose that a counter is set at the head end device to the predetermined power down period, thereby synchronizing the counters. However, Tiedemann discloses synchronizing a receiver with that of the transmitter to which it is connected (see column 4 lines 17-33)). It would

have been obvious to one skilled in the art at the time of the invention to perform the synchronization between the source and receiver timers, as taught by Tiedemann, in the system of Medendorp because doing so would prevent timing problems and possible loss of data (i.e. the source would know when the receiver was powered down or not and therefore it would know when the proper time would be to transmit data to the receiver).

Medendorp also does not disclose that the portion of the receiver is powered down in response to an indication from the source that data transmission has ended. However, Kim discloses of a system wherein a receiver powers down when it receives a particular code word from the transmitter which indicates the end of the data transmission (see column 7 lines 3-8)). It would have been obvious to one skilled in the art at the time of the invention to power down the receiver when the source sends it an indication that data transmission has ended, as taught by Kim, in the system of Medendorp because doing so would prevent wasting power (i.e. since the transmission of data has ended there is no need for the receiver to remain fully powered).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of Kim and further in view of U.S. Patent number 5,440,562 to Cutler, Jr., hereafter referred to as Cutler.

Referring to claim 23, Medendorp discloses controlling power consumption as discussed above. Medendorp does not disclose providing a delay for timing variation between the counters. However, Cutler discloses of a system wherein timing delay is provided in order to accommodate timing variations between to nodes (see column 13 lines 36-41). It would have been obvious to one skilled in the art at the time of the invention to provide a delay in the system

of Medendorp, as taught in the system of Cutler, because as Cutler points out in column such delay can prevent drop-outs, gaps, and repetitions that are caused by varying time characteristics.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of Kim and Tiedemann and further in view of Weston et al. (USPN 5,799,069), hereafter referred to as Weston.

Referring to claim 13, Medendorp discloses the system discussed above. Medendorp does not disclose that each of the at least one remote communication device is powered over the connection between the head end communication device and the at least one remote communication device. However, Weston discloses a communications system wherein a modem is powered over a phone line (see column 4 lines 20-33)). It would have been obvious to one skilled in the art at the time of the invention to use the method of providing power to remote devices, as taught in Weston, to power the CAU's of Medendorp because doing so would save users of the CAU's the costs of having to power the units themselves, thereby making the system of Medendorp more cost effective for the CAU users.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of Kim and Tiedemann and further in view of Stifle.

Referring to claim 16, Medendorp discloses the system discussed above. Medendorp does not disclose that the head end retransmits packets when no acknowledgment is received. However, Stifle discloses of a system wherein when a head end does not receive acknowledgments it retransmits the data (see column 10 lines 19-26)). It would have been

obvious to one skilled in the art at the time of the invention to implement, in the system of Medendorp, a protocol of retransmitting packets that are not acknowledged, as taught in the system of Stifle, because such a protocol would allow data that might be lost or corrupted during transmission (and therefore not acknowledged) to be retransmitted to the destination, thereby increasing the reliability of the system of Medendorp.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Medendorp in view of Emmermann (USPN 5,740,540), hereafter referred to as Emmermann.

Referring to claim 27, Medendorp discloses the system as discussed above. Medendorp does not disclose that the retransmitted data is a ring signal. However, Emmermann discloses of a system wherein data retransmissions include a ring signal (see column 3 lines 1-9). It would have been obvious to one skilled in the art at the time of the invention to have the data retransmission consist of a ring signal, as taught in Emmermann, because as Emmermann points out in column 3 line 1, such a signal is very important because it indicates to a user of the system that an incoming call is available.

(11) Response to Argument

Appellant's arguments have been fully considered but they are not persuasive.

On page 8 with respect to claims 26 and 28, the Appellant argues that one of ordinary skill in the art would not be lead to set the duration of a power down timer to allow detection of retransmission of data since the counter, in Medendorp, is related to signaling on a control channel and not used to assure reception of data on a data channel. The Examiner respectfully

disagrees. The counter is used to power up and power down in Medendorp is related to *both* the signaling on the control channel and the reception of a call when an alert is received by a CAU (see column 4 line 57 through column 5 line 37). Furthermore, since the reception of calls on the data channel depends on whether the alerts for the calls are received or not and the determination as whether or not the alerts are received depends on the when the CAU is powered up and the counter is used for the power up, then the counter innately does assure reception of data on the data channel (see column 4 line 57 through column 5 line 37). One of ordinary skill in the art at the time of the invention would be motivated to power up the CAU to detect retransmissions because if the CAU does not have enough time to detect retransmissions of either the alerts on the control channel or the corresponding calls then communication would not take place and the system would not operate properly or efficiently. Furthermore, having enough time to detect such retransmissions would make the system more reliable since calls would not continually be missed because the retransmission was not detected.

On page 9 first paragraph regarding claims 1,3,5,20 and 22, the Appellant contends "...nothing in Kim teaches powering down a receiver in response to a code word from the transmitter..." The Examiner respectfully disagrees. Kim discloses that the removing unit, which is part of the receiving end of the system, receives the link shut down control word and goes into a power down mode or idle state (see column 7 lines 1-29). This removing unit receives this data from the embedding unit and thus the removing unit can be considered a 'receiver' that is powered down. Moreover, assuming *arguendo* and Kim did not disclose a 'receiver' being powered down, the primary reference, Medendorp, discloses a 'receiver' being powered down. Furthermore, the Appellant argues that Kim enters a "power down mode" or

"idle state' when the code is received and that Kim does not further define this state. However, since there are no limitations of the claims that would distinguish the Appellants "powering down at least a portion of a receiver" from that of Kim's "power down mode" that is related to the removing unit, this limitation is still met by Kim. Also, it is the view of the Examiner that the definition of these states is self-explanatory. Lastly, the Appellant argues, "...Kim does not indicate that the receiver itself is powered down. From the context of Kim, it is more likely that other circuitry associated with the receiver is powered down. In fact, Kim describes another signal referred to as a "power up code." and "If the power down code turns the receiver off, how would the receiver receive the power up code?" The Examiner respectfully disagrees. As discussed above, Kim discloses that the removing unit is powered down and the removing unit is a 'receiver' and since this unit also powers up from the power up code, it inherently must be able to receive such a signal. Nonetheless, the claimed invention recites "...powering down *at least a portion* of a receiver..." Therefore, the Appellant's arguments that "From the context of Kim, it is more likely that *other circuitry* associated with the receiver is powered down", shows that even if only other circuitry of Kim is powered down, this would meet the claim limitation of 'at least a portion' being powered down. Note, the removing unit along with the 'other circuitry' for which the Appellant refers to can also be considered the 'receiver' as a whole since they are part of the same system that is receiving the power up and power down codes.

On page 9 second paragraph the Appellant asserts that the Examiner has backed off the position that Kim teaches powering down the receiver because the Examiner stated "...even if Kim did not disclose a 'receiver' being powered down, this limitation is anticipated by the primary reference." The Examiner respectfully disagrees. The Examiner, for the sake of

argument, was merely making the point that even if Kim did not teach powering down a receiver (even though it *does* indeed teach this), the primary reference, Medendorp, discloses that a receiver is powered down and so the claimed invention would still be anticipated by the references.

On page 9 third and fourth paragraph, the Appellant argues that the receiver in Kim in not powered down since it is able to receive the power up signal. The Examiner respectfully disagrees. Kim discloses that the removing unit is 'powered down' when it receives the power down code and 'powers up' after is receives the power up code (see column 7 lines 1-29). Just because the removing unit is 'powered down' does not mean that it is powered completely *off*. It may merely mean that it is in a lowered power state and thus it is still able to receive the power up code so it can then go into a fully powered state. Furthermore, there is nothing in the claims to distinguish the 'power down mode' in Kim from the 'powering down' performed in the claim.

On page 10 third paragraph, the Appellant argues that "Claim 5 calls for adds other limitations not taught or suggested by the cited prior art" and "Claim 5 calls for powering up the receiver, checking for incoming data, and, when no data is detected, checking for incoming data without requiring a powering down during this "another selected time period." The Examiner respectfully disagrees. The claim does not recite '*without requiring a powering down during this another selected time period*'. The claim merely recites "...when no data is detected, checking for incoming data after another selected period of time..." Although Medendorp may disclose a repeating process of check for incoming data after powering down and powering up again, there is nothing in the claim to distinguish the invention from this process in Medendorp.

On page 11 regarding claims 24 and 25, the Appellant argues that Tiedemann does not teach synchronizing the counter at the receiver with a counter at the source of the incoming data to time for substantially the same power down period and that there is no motivation and there simply is no need in Medendorp for the synchronization discussed in Tiedemann. The Examiner respectfully disagrees. The 'power down period' limitation of the claim is disclosed by the primary reference Medendorp (see column 5 lines 23-37). Medendorp does not disclose synchronizing the transmitting and receiving timers associated with the powering down and powering up. Tiedemann discloses the process of receivers and the transmitters synchronizing their counters (see column 4 lines 17-32). In Medendorp, the receiver goes into a sleep mode and data transmitted to the receiver will not be received while in this mode. As such, the receiver may miss data and the transmitters either will not know that the data is missed or some method of recovering the data will have to be invoked by the receiver. Either way, this could be inefficient and detrimental to the Medendorp system. It would have been an obvious alteration to a skilled artisan at the time of the invention to synchronize timers in the transmitters and receivers of Medendorp because then they could coordinate when to transmit and receive the data, such that the data will not be missed and a data recovery process does not have to be invoked, thereby preserving system resources and increasing the efficiency of Medendorp. Furthermore, the Medendorp system transfers audio/video (CATV) and voice (POTS) information (see figure 1 and column 1), which require a low transmission delay in order to maintain quality. Therefore, synchronizing the receivers and transmitters in Medendorp would prevent missing data, which in turn would reduce possible delay conditions and thus help maintain signal quality.

On page 12 second paragraph the Appellant argues that there is no motivation for combining the Medendorp reference with the Kim reference. The Examiner respectfully disagrees. As shown in the preceding paragraph above, there is indeed significant motivation for combining the references.

On page 12 third paragraph the Appellant argues that the motivation provided by the examiner has been provided without referring to either reference. The Examiner respectfully disagrees. As shown above, the references are indeed referred to for the motivation. Furthermore, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves ***or in the knowledge generally available to one of ordinary skill in the art***. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, a skilled artisan, using knowledge generally available in the art, at the time of the invention would have been motivated to combine the Kim and Medendorp references for the reasons discussed above.

On page 14 second paragraph, the Appellant contends that the limitation of claim 17 recites, "...the counter establishes a time period that is sufficient to allow detection of a data packet that is retransmitted...when no acknowledgement is received..." and that there is no teaching in Stifle to this limitation. The Examiner respectfully disagrees. It would have been obvious to one skilled in the art at the time of the invention to power up the receiver of Medendorp for enough time to detect retransmissions because doing so would allow for proper communication with the source and Stifle discloses the acknowledgment aspect of the limitation

(see column 10 lines 19-26)). It would have been obvious to one skilled in the art at the time of the invention to implement, in the system of Medendorp, a protocol of retransmitting packets that are not acknowledged, as taught in the system of Stifle, because such a protocol would allow data that might be lost or corrupted during transmission (and therefore not acknowledged) to be retransmitted to the destination, thereby increasing the reliability of the system of Medendorp. Reliability is especially important in Medendorp, because is transfers CATV and POTS data, as discussed above. Furthermore, the receiver in Medendorp powers up and is expecting to receive data and when it does not it powers down again. Therefore setting the time period to allow for sufficient time to detect that data and send an acknowledgment when the data is received would have been obvious to a skilled artisan at the time of the invention because doing so would allow improved reliability of the system and proper communication with the source (i.e. if the receiver does not have enough time to detect retransmissions then communications with the source would not take place and the system would not operate properly) and improve reliability of the system.

On pages 14-18, regarding the rejections of claim 4,6,8-16, 21, 23 and 27, the Appellant contends that the claim is allowable over the prior art for the same reasons that were stated in the previous arguments. The Examiner disagrees with these arguments for the same reasons discussed above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

deo
May 14, 2004

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